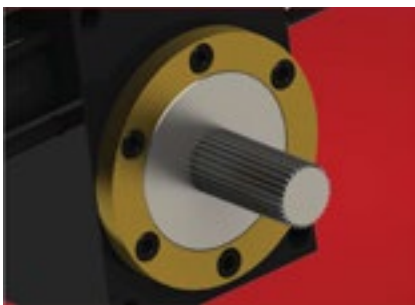
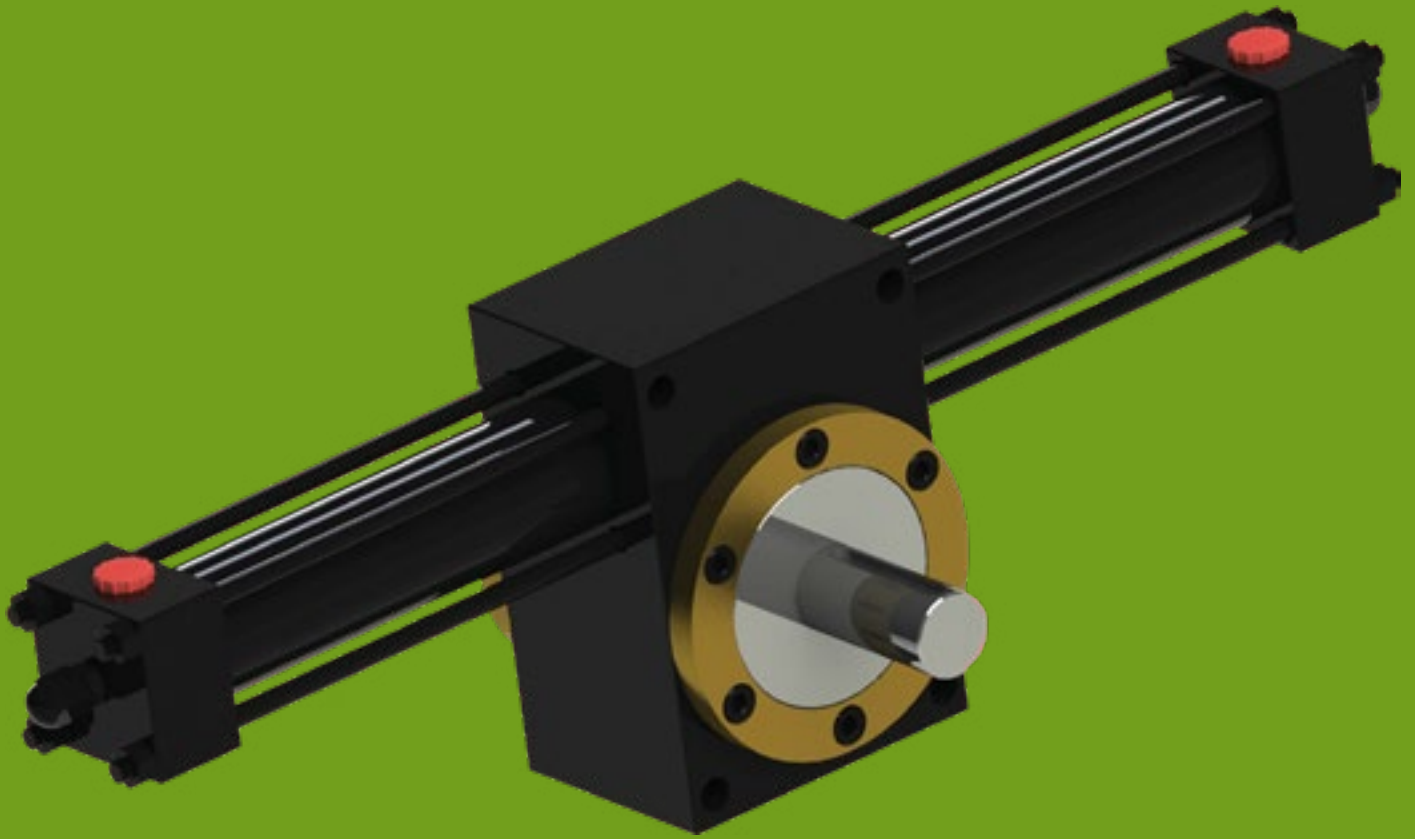


# SERIES HOL-R

## SEMI-ROTARY ACTUATORS



Hydraulics  
online

POWERING THE WORLD

# Series HOL-R Semi-Rotary Actuators

## Design

Hydraulics Online semi-rotary actuators are designed for long life, suitable for heavy duty applications and available in a wide range of torque outputs. The range comprises both single and double rack versions, the racks being hydraulically driven against a pinion to provide a rotary output.

## Performance

Hydraulics Online actuators are designed for maximum mechanical efficiency; the quoted torque figures are 100% and take into account losses within the actuator. The actuators will provide a constant torque output regardless of angular position. Torque can be adjusted by regulating the hydraulic system pressure and speed of operation can be controlled by regulating the system flow rate.

## Positioning

Hydraulics Online actuators are available with standard rotations of 90°, 180°, and 360°. Standard variable end stops allow fine setting of each end of rotation position. Standard position controls will allow a total of 20° angular adjustment i.e. 10° per end. Mid rotation point is at 12 o'clock and is indicated by the position of the key way or identified by an arrow on non-keyed shafts.

## Cushioning

Cushioning is used to decelerate rotation at the end of stroke and is effective over the last 10 to 15 degrees of rotation. Use of end stops will reduce the available cushioning length proportionally.

## Output Shafts

Output shafts can be single or double-sided, and can be supplied as plain keyed or splined; all models can be supplied with keyed hollow shafts. For heavy-duty applications, actuators can be supplied with a double shaft key.

## Materials

Hydraulics Online actuators are manufactured in alloy steel for industrial applications. Marineised and stainless steel versions are available for the offshore, food and subsea industries.

### **Seals**

Actuators are fitted with nitrile seals as standard for use with mineral oil up to 80°C. Alternative seals can be supplied for higher temperatures, or to suit other types of hydraulic fluid.

### **Port Positions**

As standard, port positions are shown as on the data sheet. If required they can be positioned at 90° or 180° to standard.

### **Double Rack Versions**

All Hydraulics Online actuators are available in a double rack configuration to provide twice the torque output shown for single rack models. This configuration ensures that the pinion bearings are balanced by the racks during operation.

### **Valve Actuators**

These variants can be supplied as spring-returned or spring-centred with visual or electrical valve position indicators and manual overrides.

### **Paint Finishes**

Actuators are supplied finished in enamel paint. Alternatively, they can be supplied in primer only or to marine specification as required.

### **Positional control**

Positional control can be supplied by end of stroke limit switches, proximity switches or rotary potentiometer for full range resolution.

### **Special Units**

All actuators can be modified for special requirements, units are available to directly interchange with existing equipment and custom designed models can be supplied if required.

# Series HOL-R Semi-Rotary Actuators

## Ordering Code

**Example:**      **HOL-R - 90 - S - 2 - 20**

Series HOL-R

Total Rotation Required

Single Rack  
Double Rack

### Shaft Type

Hollow Keyed Shaft  
Single End Keyed Shaft  
Double End Keyed Shaft  
Single End Splined Shaft  
Double End Splined Shaft  
Special Shaft

### Options

Cushioning  
Marinised Finish  
Stainless Steel  
Viton Seals  
Positional Control

S

D

1

2

3

4

5

6

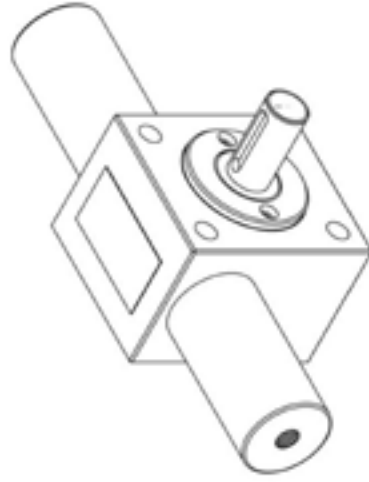
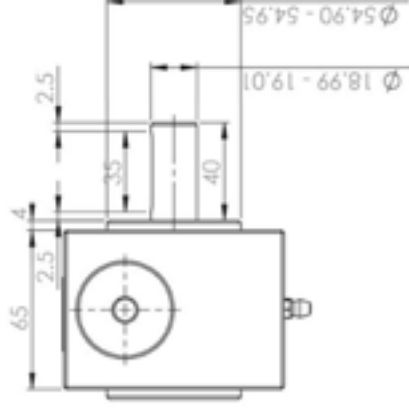
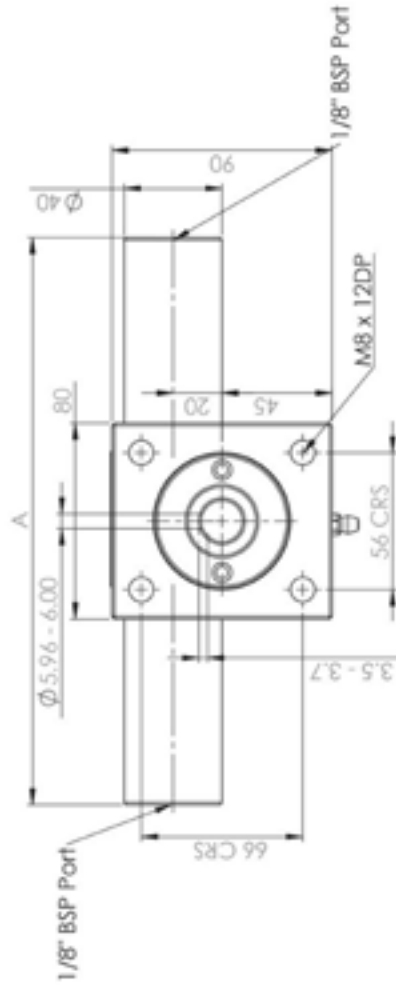
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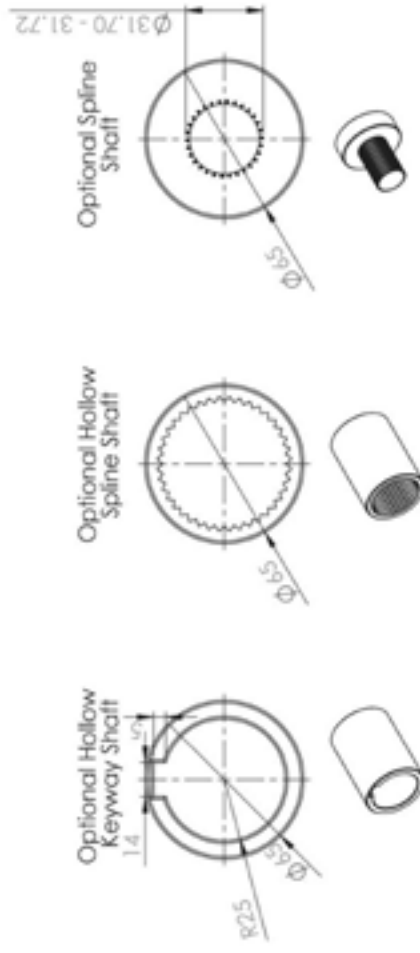
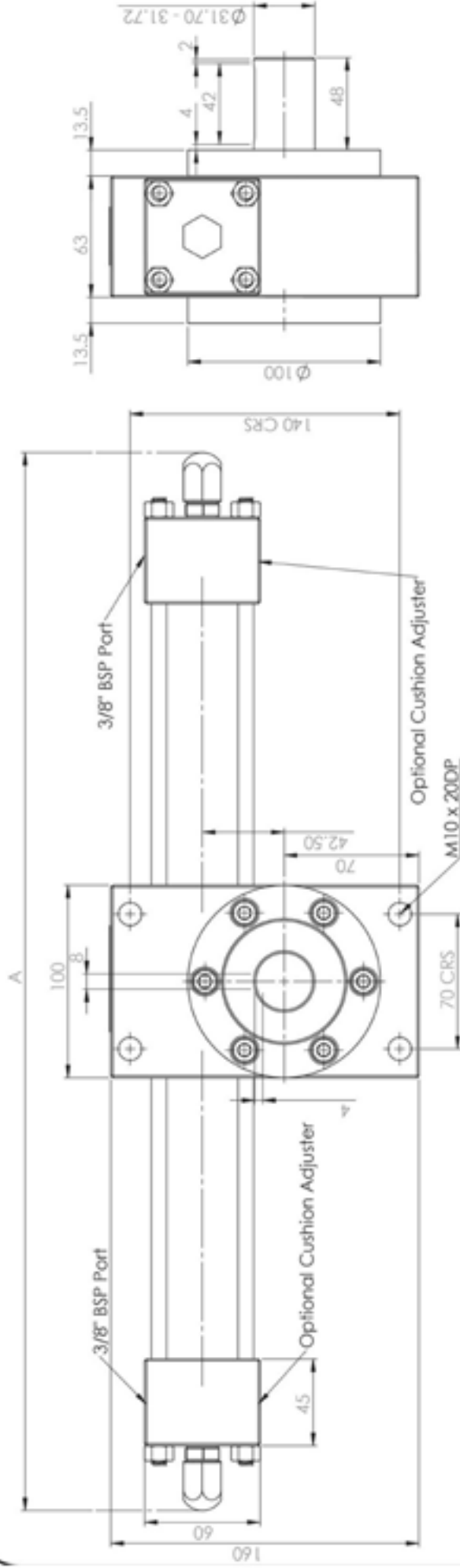
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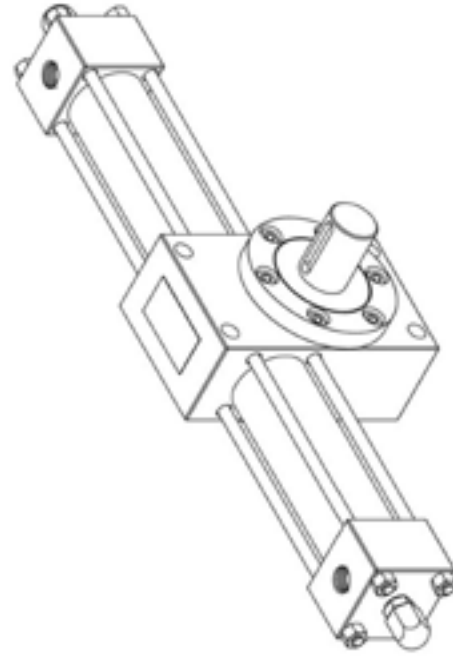
| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 11                | 166    | 70                     | 38                   |
| 180°             | 22                | 188    | 140                    | 75                   |
| 270°             | 33                | 210    | 210                    | 113                  |
| 360°             | 44                | 232    |                        |                      |

# HOL-R40S SEMI-ROTARY ACTUATOR

Hydraulics Online  
Units 2 & 3, Townend Farm, Audley Road  
Alsager, Cheshire, ST7 2QR  
Tel: +44 (0) 1270 872528  
[www.hydraulicsonline.com](http://www.hydraulicsonline.com)

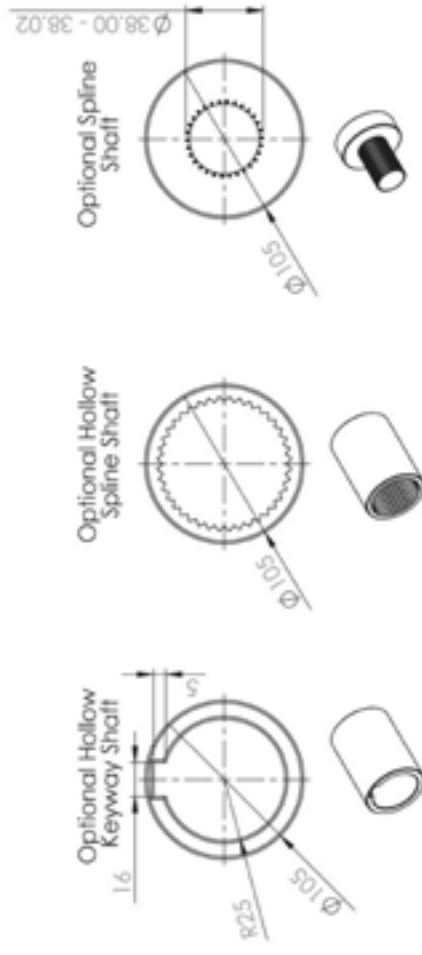
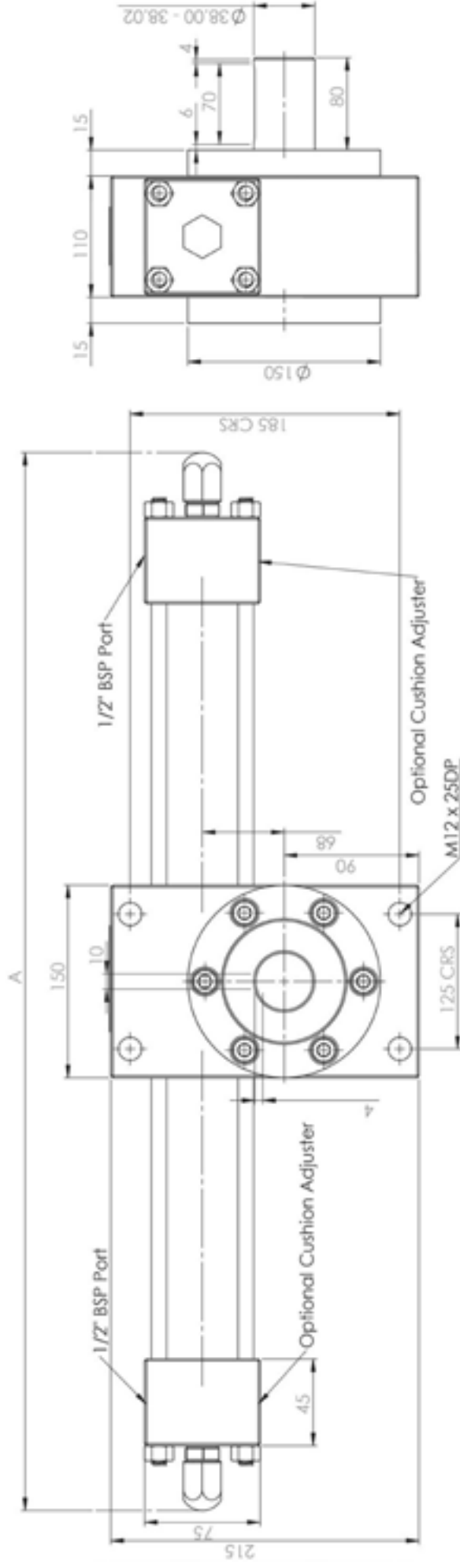


| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 75                | 432    | 70                     | 277                  |
| 180°             | 150               | 558    | 140                    | 554                  |
| 270°             | 225               | 681    | 210 (MAX)              | 831                  |
| 360°             | 300               | 800    |                        |                      |

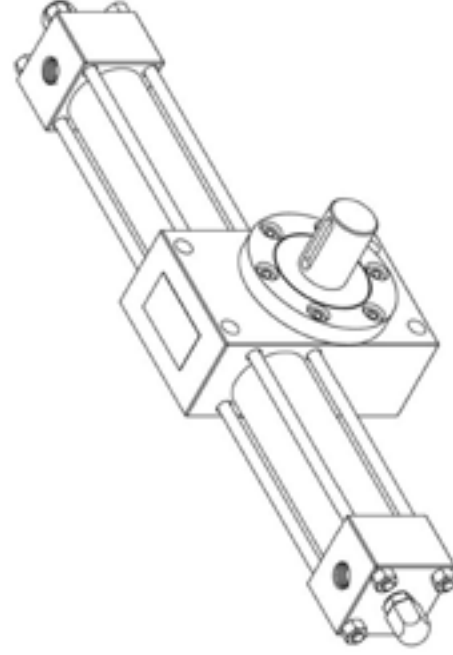


# HOL-R50S SEMI-ROTARY ACTUATOR

Hydraulics Online  
Units 2 & 3, Townend Farm, Audley Road  
Alsager, Cheshire, ST7 2QR  
Tel: +44 (0) 1270 872528  
[www.hydraulicsonline.com](http://www.hydraulicsonline.com)

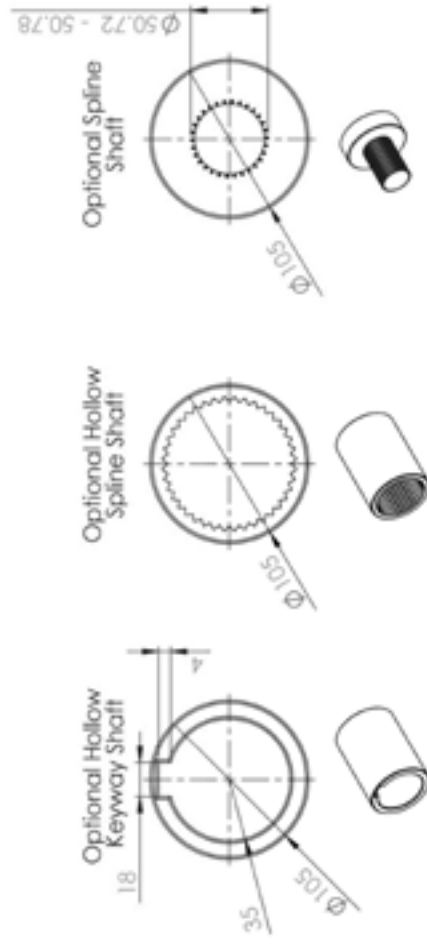
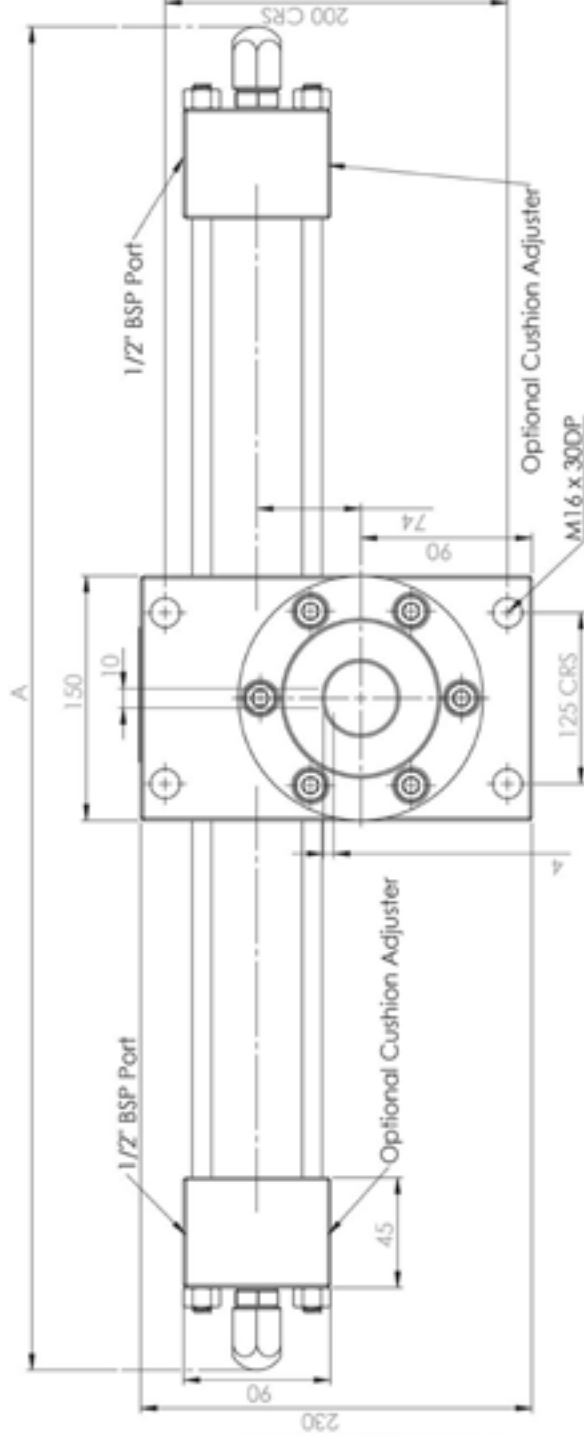


| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 172               | 568    | 70                     | 641                  |
| 180°             | 345               | 744    | 140                    | 1282                 |
| 270°             | 517               | 920    | 210 (MAX)              | 1923                 |
| 360°             | 690               | 1096   |                        |                      |

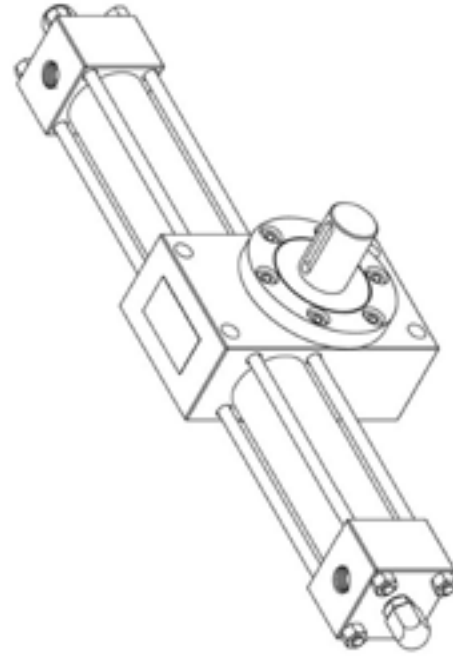


# HOL-R63S SEMI-ROTARY ACTUATOR

Hydraulics Online  
Units 2 & 3, Townend Farm, Audley Road  
Alsager, Cheshire, ST7 2QR  
Tel: +44 (0) 1270 872528  
[www.hydraulicsonline.com](http://www.hydraulicsonline.com)

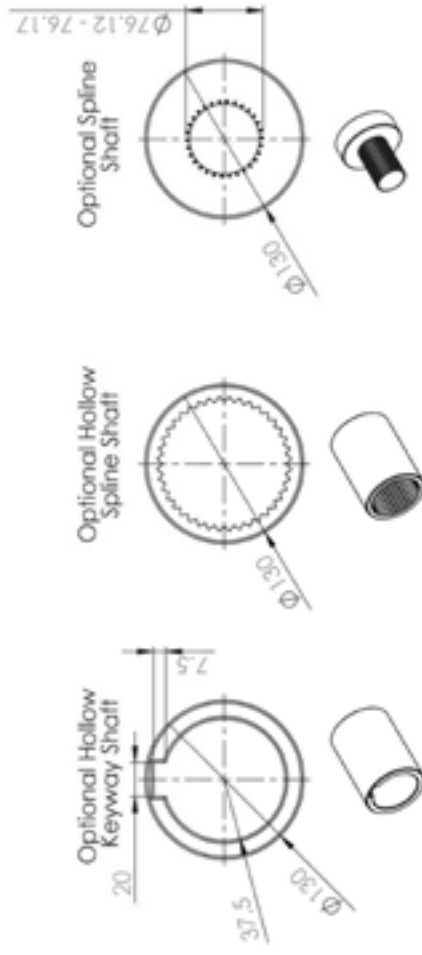
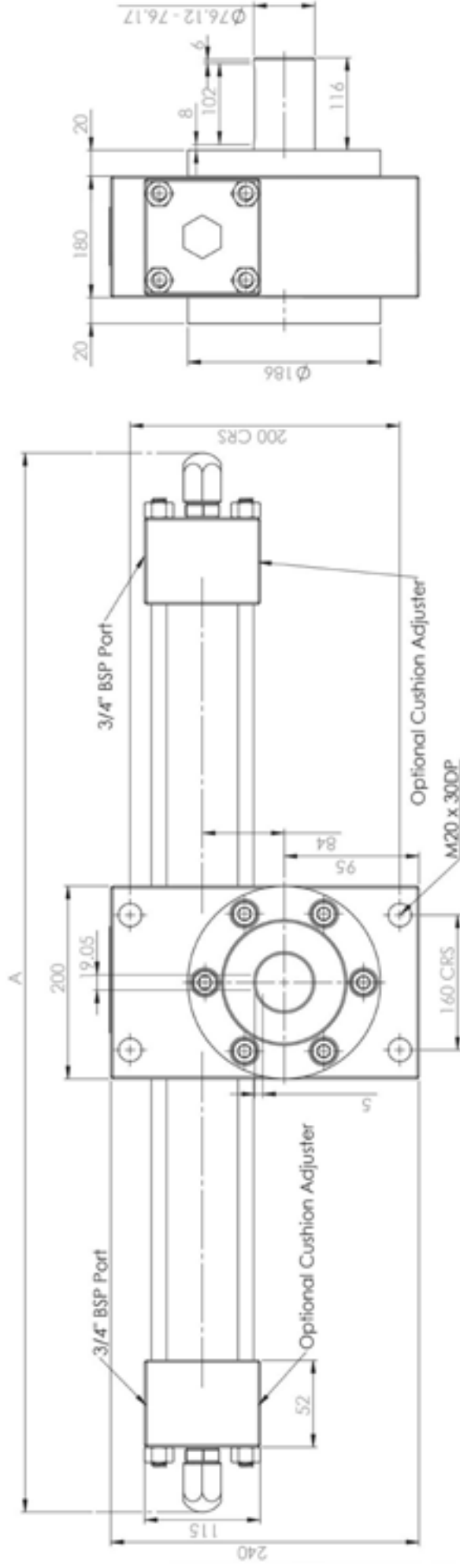


| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 274               | 610    | 70                     | 1020                 |
| 180°             | 548               | 786    | 140                    | 2040                 |
| 270°             | 822               | 962    | 210 (MAX)              | 3060                 |
| 360°             | 1096              | 1138   |                        |                      |

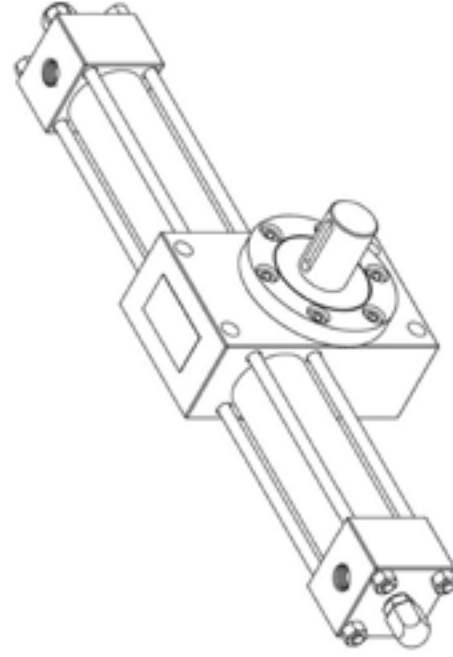


# HOL-R80S SEMI-ROTARY ACTUATOR

Hydraulics Online  
Units 2 & 3, Townend Farm, Audley Road  
Alsager, Cheshire, ST7 2QR  
Tel: +44 (0) 1270 872528  
[www.hydraulicsonline.com](http://www.hydraulicsonline.com)

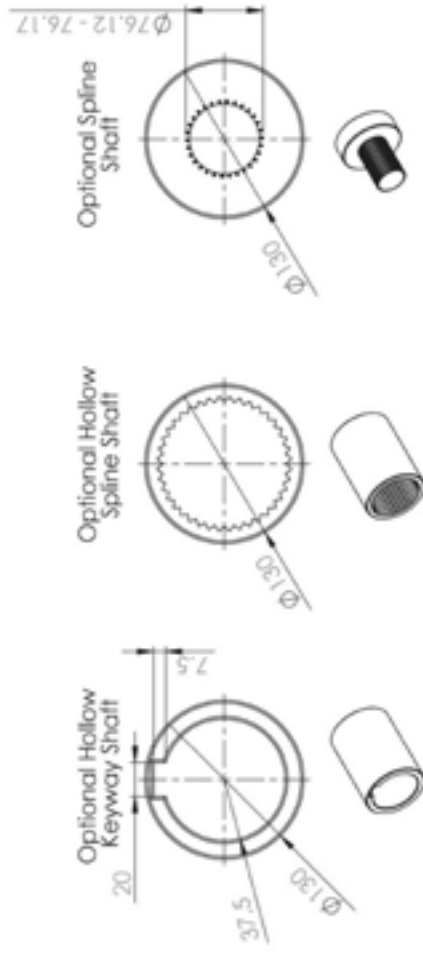
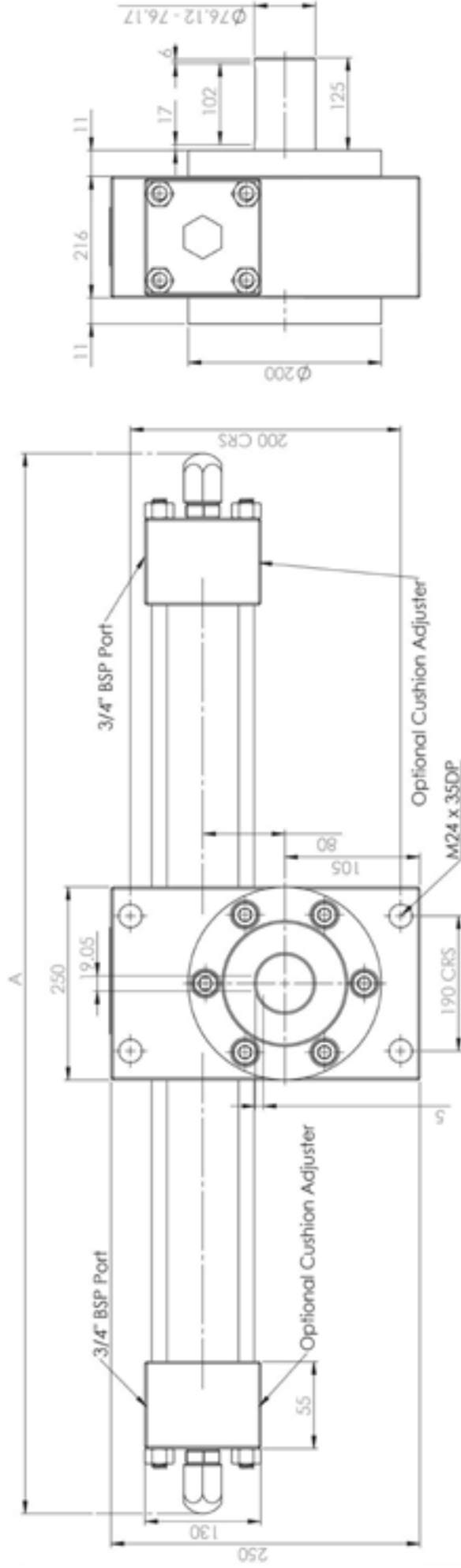


| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 513               | 692    | 70                     | 1905                 |
| 180°             | 1026              | 890    | 140                    | 3810                 |
| 270°             | 1539              | 1086   | 210 (MAX)              | 5715                 |
| 360°             | 2052              | 1282   |                        |                      |

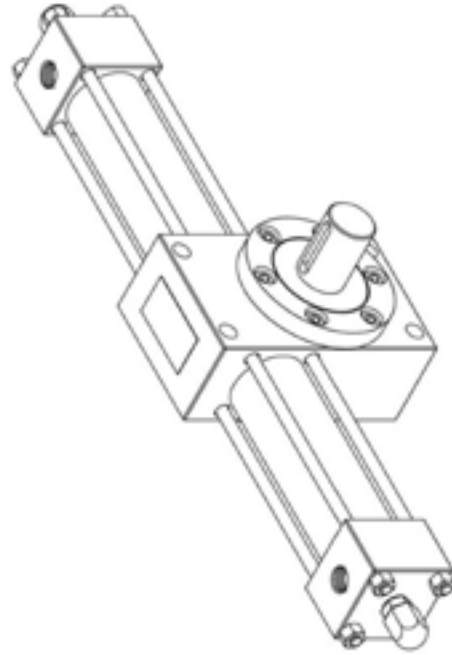


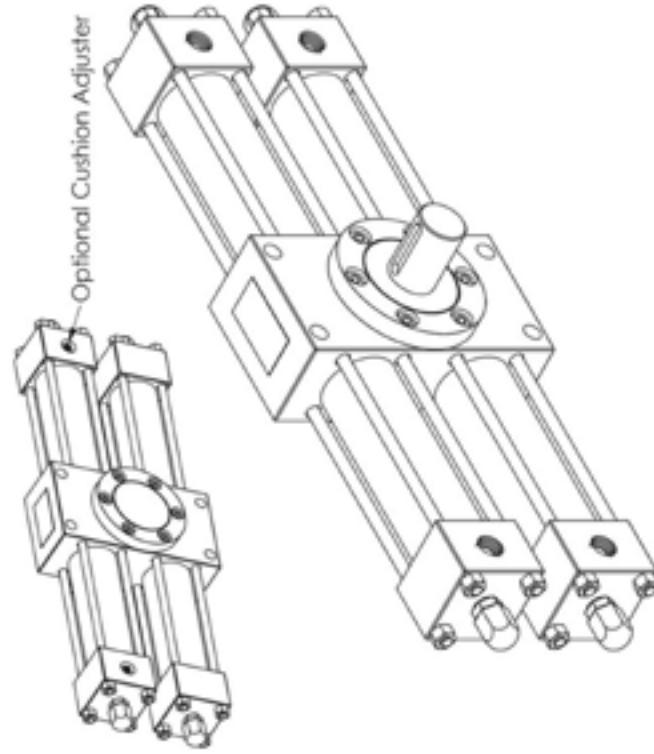
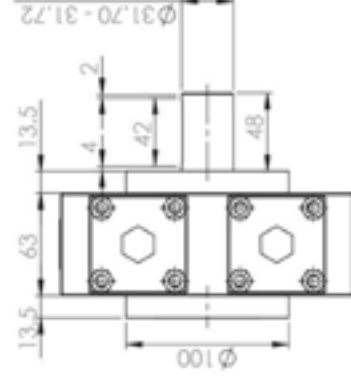
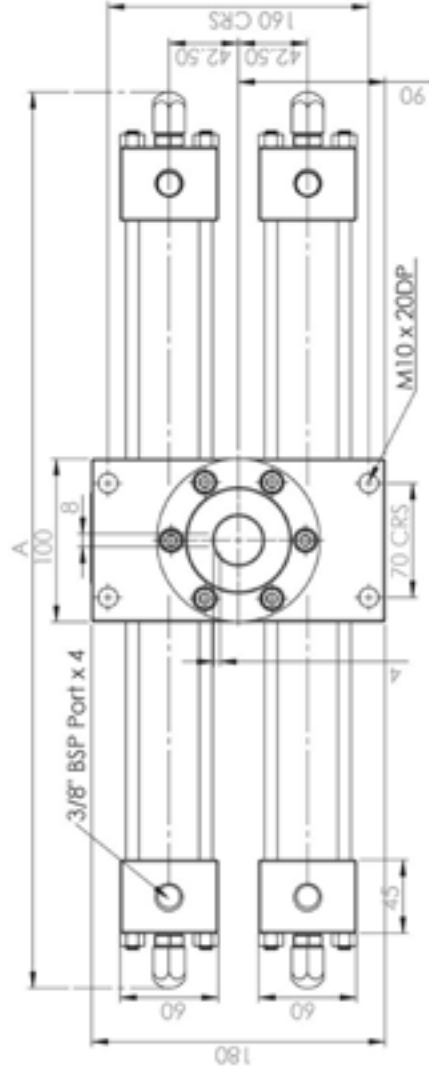
# HOL-R100S SEMI-ROTARY ACTUATOR

Hydraulics Online  
 Units 2 & 3, Townend Farm, Audley Road  
 Alsager, Cheshire, ST7 2QR  
 Tel: +44 (0) 1270 872528  
[www.hydraulicsonline.com](http://www.hydraulicsonline.com)

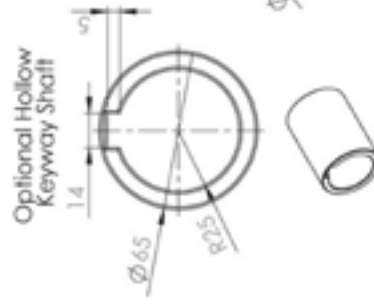


| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 962               | 781    | 70                     | 3572                 |
| 180°             | 1924              | 1002   | 140                    | 7144                 |
| 270°             | 2886              | 1430   | 210 (MAX)              | 10716                |
| 360°             | 3848              |        |                        |                      |

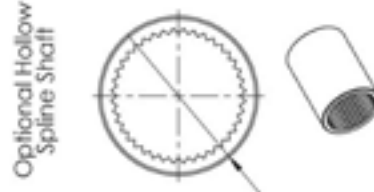




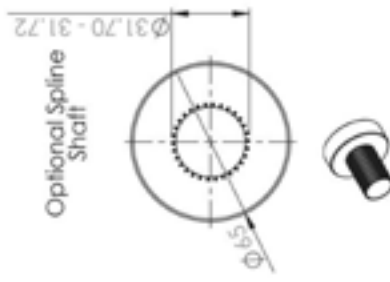
Optional Cushion Adjuster



Optional Hollow Keyway Shaft

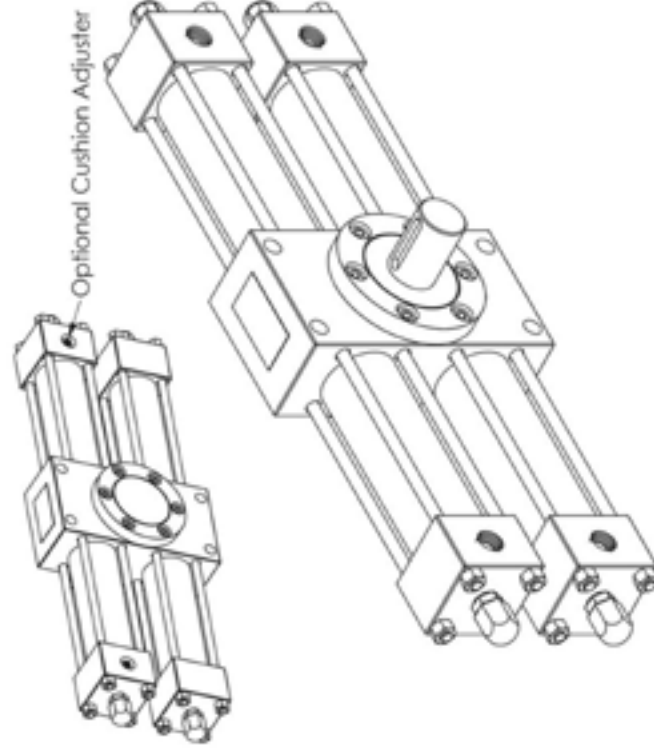
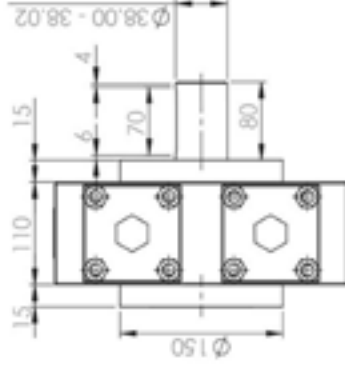
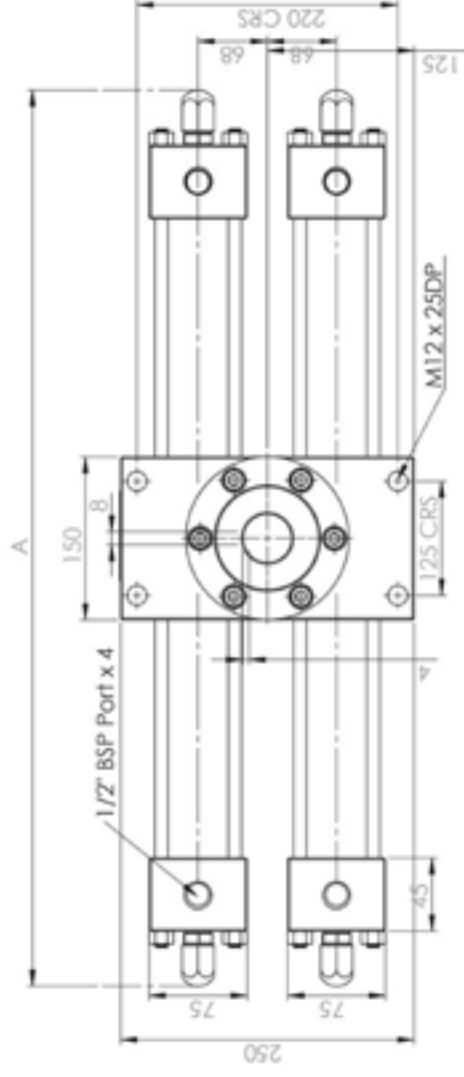


Optional Hollow Spline Shaft

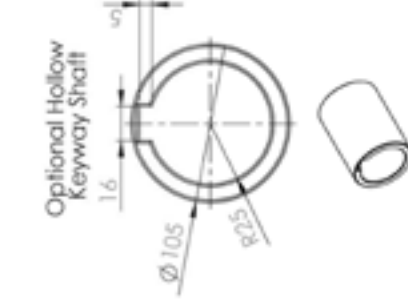


Optional Spline Shaft

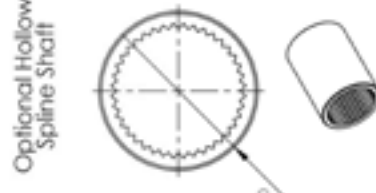
| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 150               | 432    | 70                     | 554                  |
| 180°             | 300               | 558    | 140                    | 1108                 |
| 270°             | 450               | 681    | 210                    | 1662                 |
| 360°             | 600               | 800    |                        |                      |



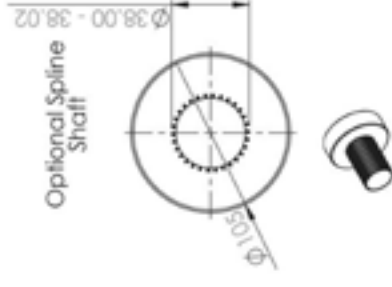
Optional Cushion Adjuster



Optional Hollow Keyway Shaft

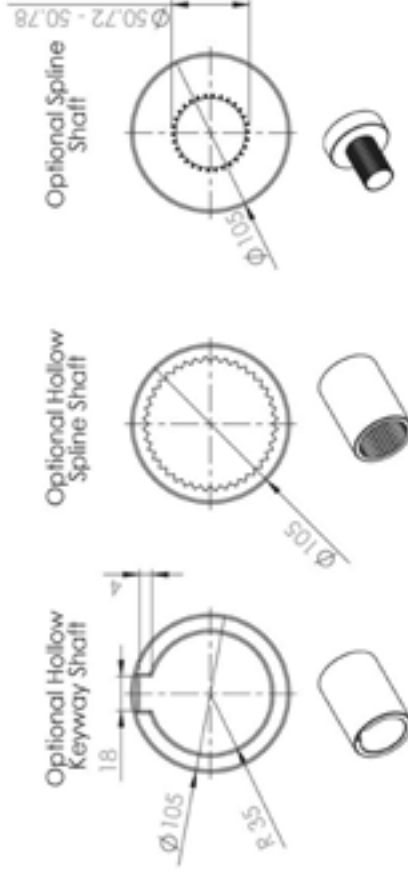
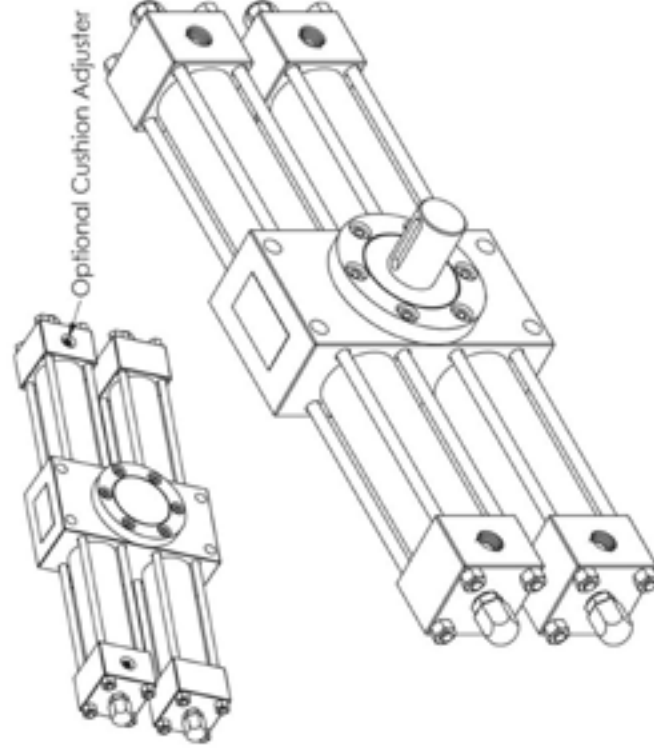
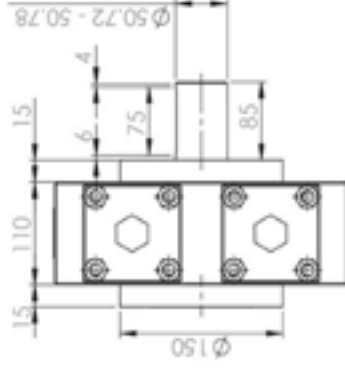
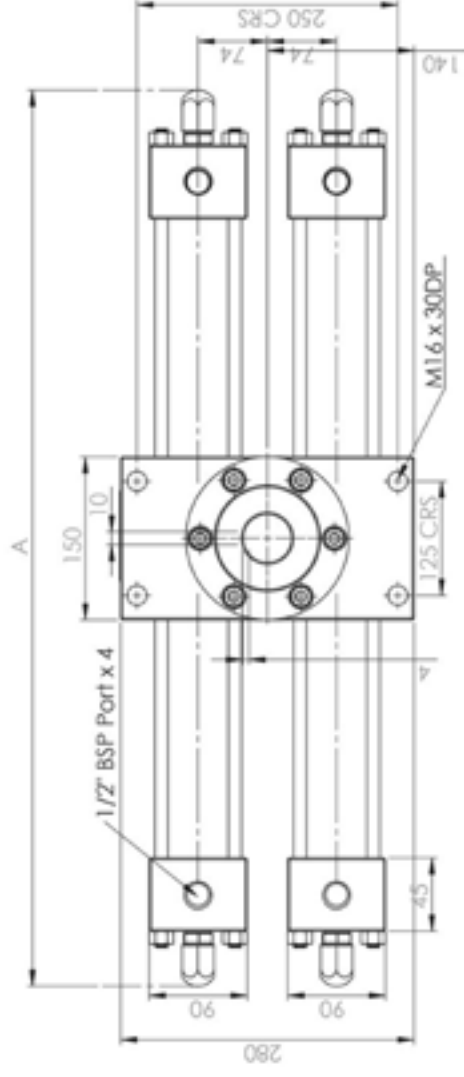


Optional Hollow Spline Shaft

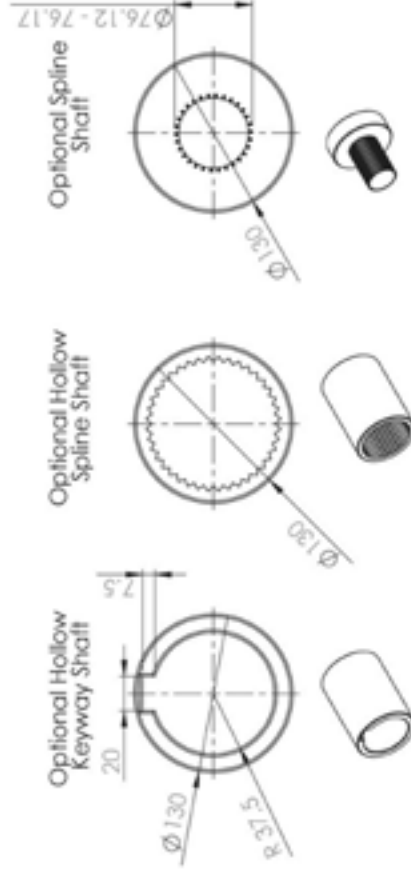
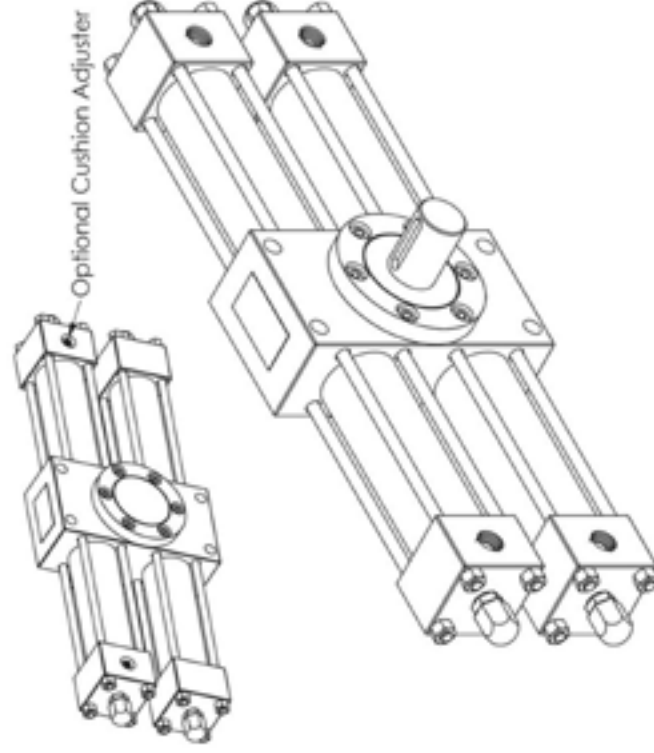
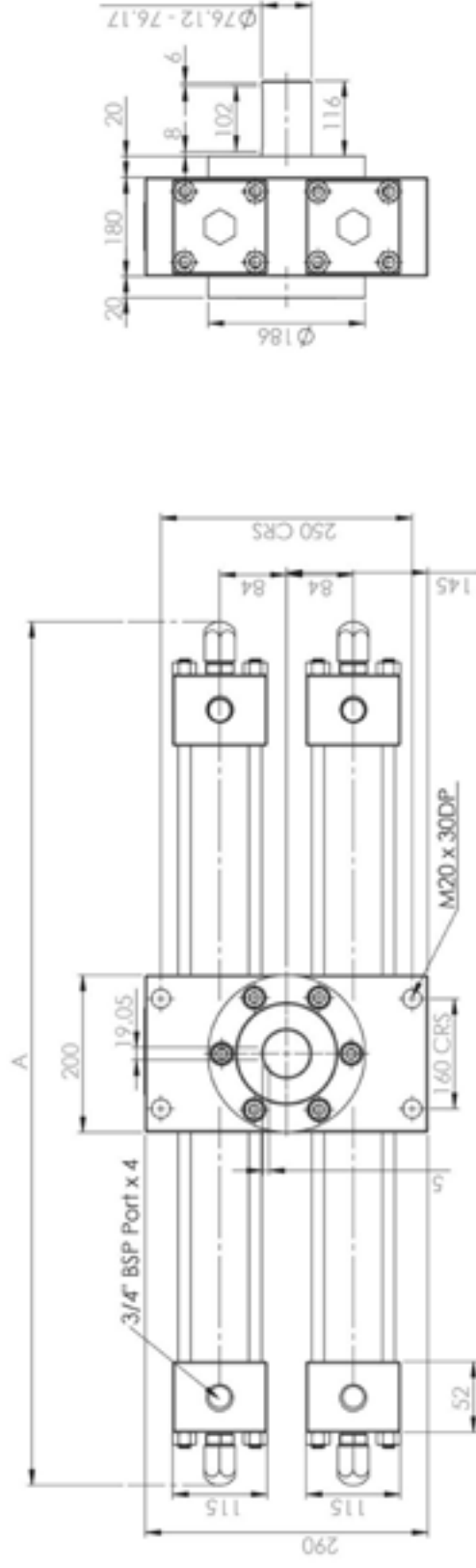


Optional Spline Shaft

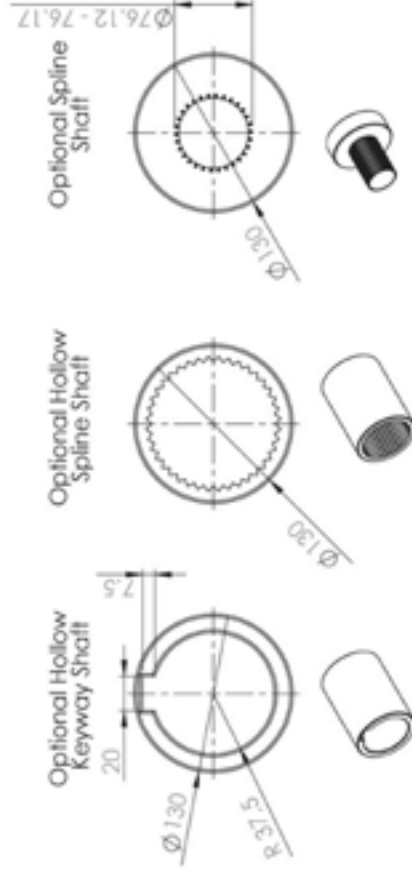
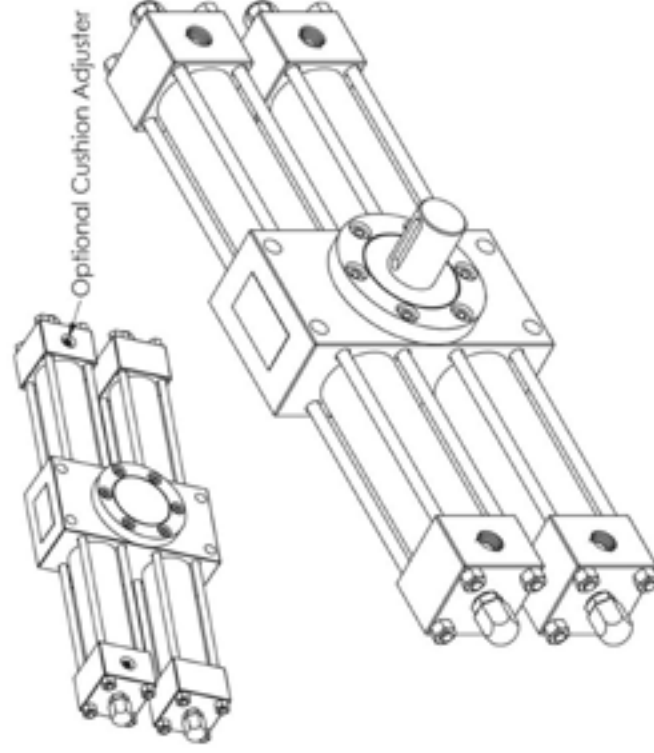
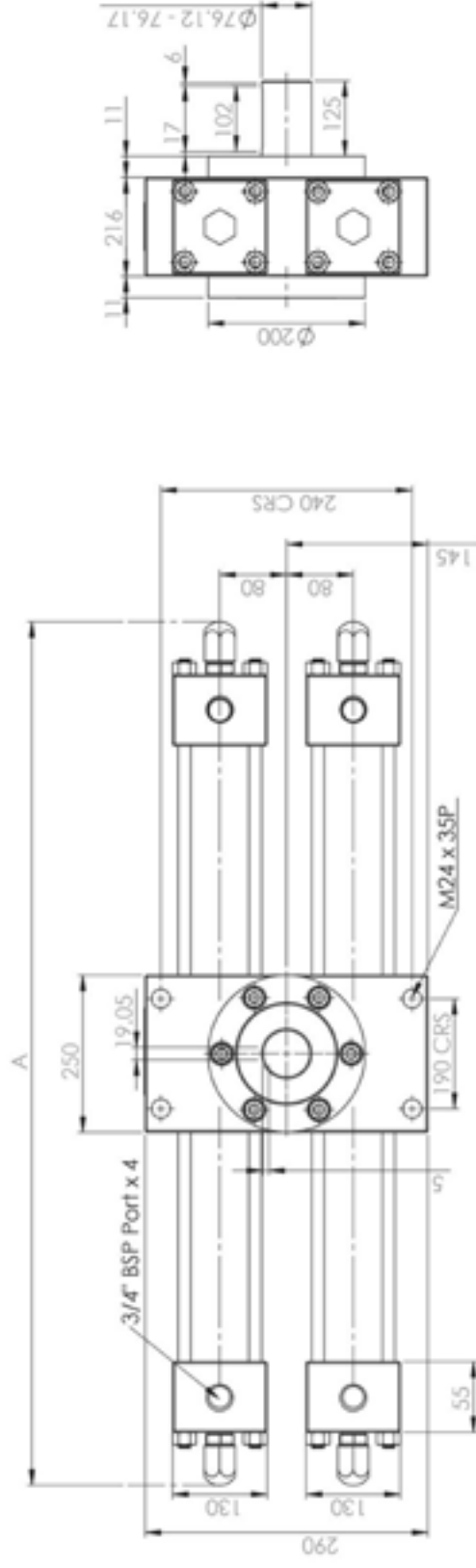
| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 344               | 568    | 70                     | 1282                 |
| 180°             | 690               | 744    | 140                    | 2564                 |
| 270°             | 1034              | 920    | 210                    | 3846                 |
| 360°             | 1380              | 1096   |                        |                      |



| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 548               | 610    | 70                     | 2040                 |
| 180°             | 1096              | 786    | 140                    | 4080                 |
| 270°             | 1644              | 962    | 210                    | 6120                 |
| 360°             | 2192              | 1138   |                        |                      |



| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 1026              | 513    | 70                     | 3810                 |
| 180°             | 2052              | 1026   | 140                    | 7620                 |
| 270°             | 3078              | 1539   | 210                    | 11430                |
| 360°             | 4104              | 2052   |                        |                      |



| Angular Position | Displacement (cc) | A (mm) | Working Pressure (BAR) | Output Torque (N.M.) |
|------------------|-------------------|--------|------------------------|----------------------|
| 90°              | 1924              | 781    | 70                     | 7144                 |
| 180°             | 3848              | 1002   | 140                    | 14288                |
| 270°             | 5772              | 1100   | 210                    | 21432                |
| 360°             | 7696              | 1430   |                        |                      |